

WHAT IS CLAIMED IS:

1 ~~Sub B3~~ 1. A network adaptor driver comprising:  
 2 an interface for receiving data from a host;  
 3 an interface for transmitting packets of data over a  
 4 network;  
 5 a mechanism for reordering packets of data received  
 6 from said host based on a destination address of said packets  
 7 before transmitting on said network.

1 2. The network adaptor driver according to claim 1  
 2 wherein said reordering is determined solely by the  
 3 destination address of said packets, said reordering  
 4 transmitting a number of packets over each queued destination  
 5 address before transmitting the next number of packets over  
 6 each said queued destination address.

1 3. The network adaptor driver according to claim 1  
 2 wherein said reordering is determined partly by the  
 3 destination address of said packets and partly by when a  
 4 packet is queued by said host so that packets are distributed  
 5 over all destinations while minimizing the time to  
 6 transmission from when a packet is received from the host for  
 7 a given packet.

1 4. The network adaptor driver according to claim 1  
 2 wherein, for example, packets received from the host in an  
 3 order A1, A2, B1, C1, C2, C3, A3, B2, B3 are transmitted by  
 4 the adaptor in nearly the order A1, B1, C1, A2, B2, C2, A3,  
 5 B3, C3.

1 5. The network adaptor driver according to claim 1  
 2 wherein, for example, packets received from the host in an  
 3 order A1, A2, B1, C1, C2, C3, A3, B2, B3 are transmitted by  
 4 the adaptor in nearly the order A1, B1, C1, A2, C2, B2, C3,  
 5 A3, B3.

1 ~~Sub B2~~ 6. A method for maximizing network parallelism  
 2 comprising:  
 3 ~~B2~~

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B2)

receiving data packets for transmit to a plurality of destinations from a host in a first FIFO order;

prior to transmitting said data packets, reordering said packets based on a destination address of said packets, so that said packets are spread over different network destination paths; and

transmitting said reordered packets over a network.

7. The method according to claim 6 wherein said reordering is determined solely by the destination address of said packets without regard to the time at which packets to different destinations are queued.

8. The method according to claim 7 wherein said reordering is determined partly by the destination address of said packets and partly by when a packet is received from said host so that packets are distributed over all destinations while minimizing the time variations between when a packet is received from the host for a given destination and when that packet is transmitted.

9. The network adaptor driver according to claim 1 wherein said reordering is determined by a preset, nonadjustable scheme.

10. The network adaptor driver according to claim 1 wherein said reordering is determined by a programmable scheme which may take into account differences in speed and performance paths to particular destinations to maximize network parallelism.

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